PROTECH®

Product Information

PS-Series Optical Fiber Camera Conversion System
PS-270HD Series Handy Camera Adaptor
PS-470HD Series Shoulder Camera Adaptor
PS-570HD Series Base Station

Features;

■ **Transferrable signal with the single link system are;**
    1) HD/SD SDI   2) Return video   3) Intercom   4) Tally and TC
    5) Camera control data* / Gen lock**

■ **Lossless long distance capability(max.2km)**

■ **Support embedded audio**

■ **Broadcast quality video & audio**

■ **Signal error detection**

■ **Durable, high performance & versatile functions**

■ **Simple & cost effective**

■ **Multimode or single mode available**

■ **Camera signal can be adjusted with camera remote**
   control unit from Sony or Panasonic.

■ **V-mount battery operation**

■ **AC/DC operation**

Remarks: * Except PS-270HD, ** PS-270SHDG only

Single Link Cost Effective Optical Fiber System

PS-series Optical Fiber System can transfer HD/SD SDI signal with single fiber optics cable, high quality and cost effective field or studio production system can be constructed. Transferrable signals are;
*HD/SD SDI ,*Return Video, *Intercom, *Tally and TC and Camera Control Date/Gen Lock(except PS-270)

Camera Adaptor for Handy type Camcorder available

Camera Adaptor for Handy type camcorder is also available as well as Shoulder type camcorder in the PS-series, the available product range are;
PS-270HD Series: Camera Adaptor for Handy type Camcorder
PS-470HD Series: Camera Adaptor for Shoulder type Camcorder
PS-570HD Series: Base Station

Easy set up with proper HD viewfinder HDM-70WV

HDF-700 series or HDM-70 series high grade HD viewfinder can be easily equipped with PS-series Camera Adaptor and Panasonic or Sony camcorder, the combination can realize easy camera set-up and professional monitoring. Camera/Return signal switching on monitor screen is available with zoom demand controller from Fujinon/Canon for shoulder type camcorder or Protech zoom demand controller for Handy type camcorder.

VF Interface Unit(Shoulder type only)

With VIF-100 series VF Interface unit Tally and Return signal can be checked on viewfinder of camcorder manufacturer (Panasonic/Sony). VIF-100P for Panasonic Camcorder, VIF-100BC for Sony broadcast grade camcorder and VIF-100 for Sony professional camcorder.

Operational Status Indicator/Tally Light & Selector

Operational status of communication between camera adaptor and base station is displayed in real time on operation status indicator which is located on front panel of base station PS-570HD Series. Tally light & Selector is also located on front panel of base station PS-570HD series.

Remote Control Operation*

Remote control unit from Panasonic or Sony can be connected and operated with Base Station PS-570HD Series for camera signal adjustment such as iris, gain, white balance, black level, gamma, detail, etc. The adjustable items are depend on controller, model number and brand you wish to connect with PS-570HD Series must be informed at time of purchase.

Panasonic; AG-EC4   AJ-RC10G   Sony;   RM-B150   RM-B750

*Remarks: All Sony Handheld Camcorder which has RMB-B750/B150 remote control I/F and Panasonic new Handheld camcorder AG-HPX255 can be remote controlled with AG-EC4

Powerful AC/DC operation

Both of AC Power Supply and DC power operation from V-mount Battery(DC12V/14.4V) is available , with low power consuming designed power circuit can realize long time operation for field production, consumable max. power is 70W.   Extendable maximum distance from Camera Adaptor to Base Station is up to 2km.
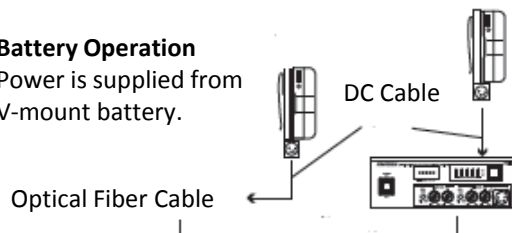
AC Operation
Cam Light/Prompter can be used.

Optical Fiber Cable

Power supply up to 2Km   AC Power supply
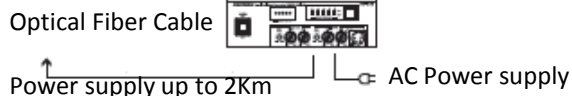
Battery Operation
Power is supplied from V-mount battery.   DC Cable

Optical Fiber Cable

Cost Effective High Quality Optical Fiber Cable

ARIB* standard cost effective high quality optical fiber cables** are available as option for connection between Camera Adaptor and Base Station;   ALC-20M for 20m, ALC-50M for 50m and ALC-100M for 100m, longer than 100m cable is available on request base.
remarks: *Association of Radio Industries and Business in Japan
        **LEMO type optical fiber connector is standard, TAJIMI type connector is also available on request base.

PS-270HD/PHDG/SHDG* Handy Camera Adaptor

- HD/SD-SDI input from a camera
- RET video output to the camera
- 4-pin XLR intercom headset jacks (x2)
- 12V DC output
- Front & rear TALLY indicators
- SMPTE Fiber cable connector
- Camera Remote Connector(except PS-270HD)
- Gen-Lock(PS-270SHDG only)

*Remarks: PS-270HD: For camcorder without camera remote/gen-lock such as AG-HPX250,AG-AS160,etc.
            PS-270PHD: For camcorder with camera remote but without gen-lock such as AG-HPX255, etc.
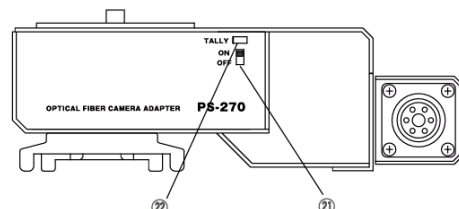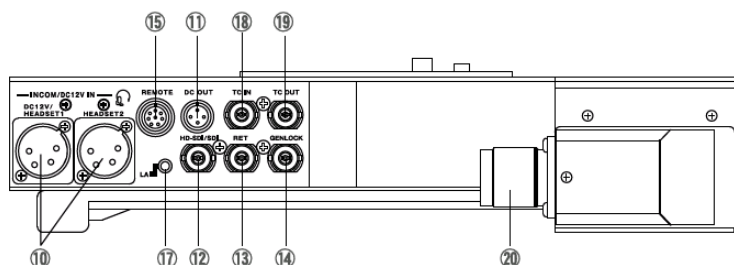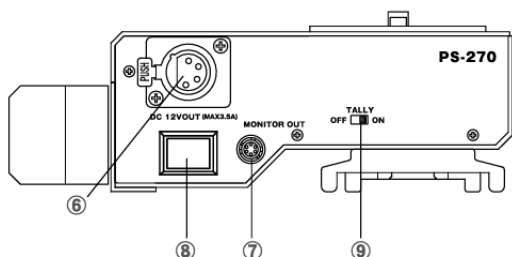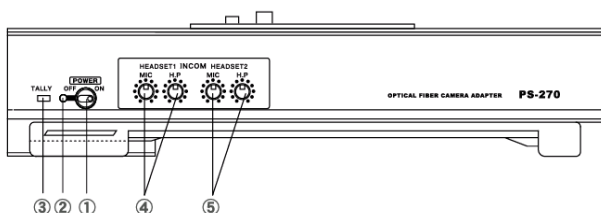   PS-270SHDG: For Sony handheld camcorder with camera remote & gen-lock.

Connector panel   Front view   Rear view

1   Power Switch
2   Power Indicator LED
3   Tally Indicator
4   Headset 1 Intercom volume control
5   Headset 2 Intercom volume control
6   DC12V Output connector(XLR 4p female)
7   MON Connector
8   Tally Indicator
9   Tally On/Off SW
10 Intercom Headset Connector(XLR 4p male)
11 DC Output Connector(for Handy Camera 8.4V or Wireless Receiver 12V)
12 HD/SD SDI Input Connector(BNC)
13 RET Video Composite Output Connector(BNC)
14 Gen Lock Output Connector(BNC)
15 Remote Connector(10p for Panasonic/8p for Sony)
17 LANC Connector
18 TC Input Connector
19 TC Output Connector
20 Optical Fiber Cable Connector
21 Tally On/Off SW
22 Rear Tally Indicator

PS-470PHDG/SHDG* Shoulder Camera Adaptor

- HD/SD-SDI input from a camera
- RET video output to the camera
- Gen lock output to the camera
- Camera remote controller(Sony or Panasonic)* connectable
- 4-pin XLR intercom headset jacks (x2)
- 12V DC output
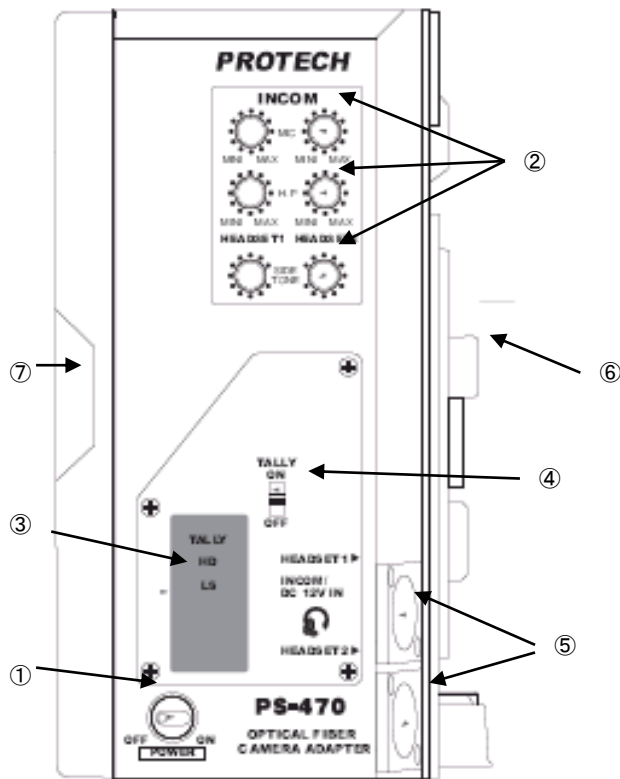- Front & rear TALLY indicators
- SMPTE Fiber cable connector

Main Panel   Connector Panel

*Remarks: PS-470PHDG For Panasonic Shoulder type camcorder
           PS-470SHDG For Sony Shoulder type camcorder
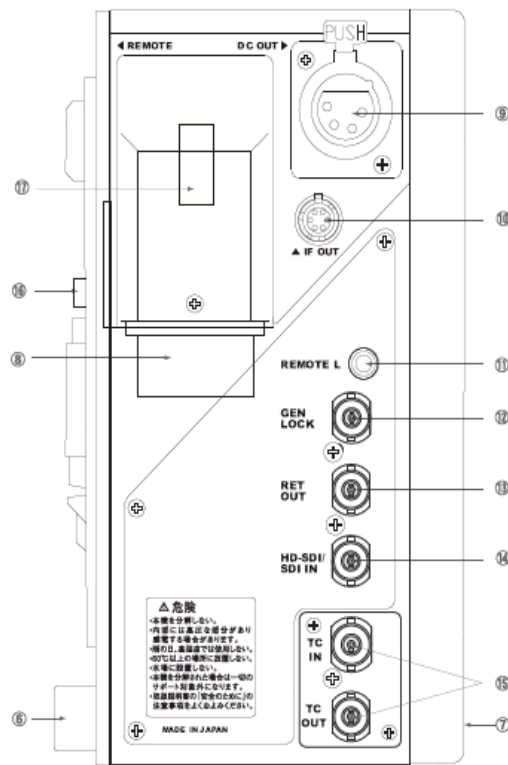
Main Panel

1   Power SW
2   Intercom Volume Control
3   Operational Status LED Indicator Panel
4   Tally On/Off SW
5   Intercom Headset Connector & DC12V Power Input
     (XLR 4p male)
6   Battery Holder(Sony Li-ion Battery)
7   V-mount Adapt0r

Connector Panel

8   SMPTE Optical Cable Connector
9   DC Power(12V) Output Connector(XLR 4p female)
10   IF(Monitor) Output Connector(6pin)
11   Remote(LANC) Connector(Φ2.5 mini jack)
12   Gen Lock Output Connector(BNC)
13   RET Output Connector(BNC)
14   HD/SD SDI Input Connector(BNC)
15   TC Input / Output Connector(BNC)
16   Remote Connector(10p for Panasonic, 8p for Sony)
17   Tally light

PS-570PHD/PHDG/SHDG* Base Station

- HD/SD-SDI output
- RET video input
- Gen lock input
- Camera remote controller(Panasonic or Sony)* connectable
- 4-pin XLR intercom headset jacks (x2)
- 12V DC input & AC power supply
- TC input/output
- TALLY input/output
- SMPTE Fiber cable connector

*Remarks: PS-570PHD with camera remote for Panasonic handheld type camcorders
           PS-570PHDG with camera remote & gen-lock for Panasonic shoulder type Camcorders
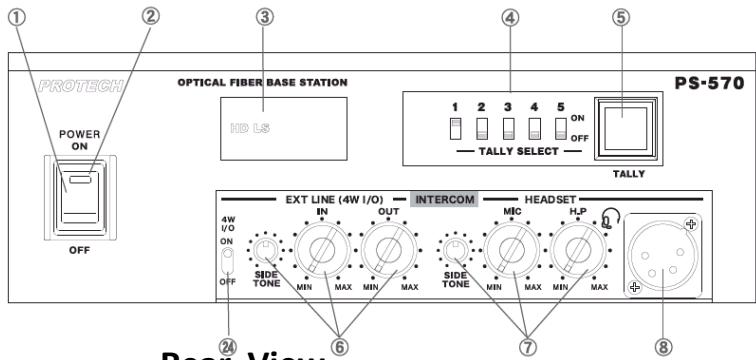   PS-570SHDG for Sony Camcorders

Front View

Rear View

Front View

Rear View
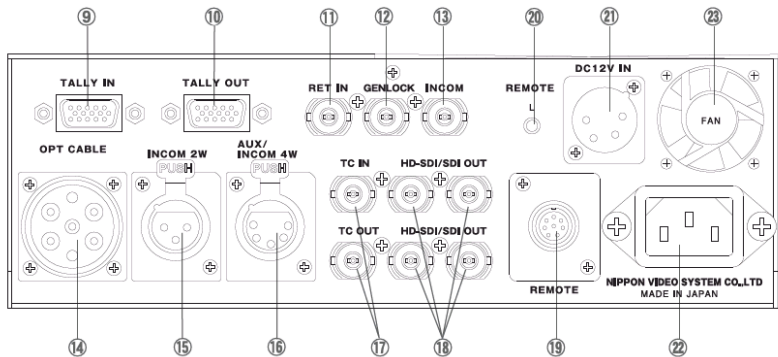
1   Power SW
2   Power Indicator
3   Operational Status indicator
     HD; light up when HD signal received, light off
         when SD signal received
     LS; light up when optical signal received
4   Tally Selector SW
5   Tally Indicator
6   Ext. Audio Line volume control
7   Intercom volume control
8   Intercom Headset Connector(XLR 4p male)
9   Tally Input Connector(HD D-sub 15p female)
10 Tally Output Connector(HD D-sub 15p female)
11 RET Input Connector (BNC)
12 Gen Lock Input Connector(BNC)
13 Intercom Bridge Connector(BNC)
14 Optical Fiber Connector
15 Intercom 2W Connector(XLR 3p female)
16 AUX/Intercom 4W Connector(XLR 5p female)
17 TC Input / Output Connector(BNC)
18 HD/SD SDI Output Connector
19 Remote Connector(10p for Panasonic/8p for Sony)
20 Remote(LANC) Connector
21 DC 12V Input Connector(XLR 4pin male)
22 AC Power Supply Connector
23 Ventilation Fan
24 Intercom EXT Line 4W I/O On/Off SW

PS-270PHD Connection Example:

Panasonic AG-HPX255

DC Power Cable DC-P175

Remote

Video out

*Remote Cable RCC-450P

Protech VF Monitor LVM-89W

Video In

VC-450 VF 6p Cable
For Tally, RET & DC Power

Mount Bracket UH25

HD/SD SDI Camera Output with BNC Cable

Protech Lens Remote Control

Zoom/Iris Control   Focus Control

Camera Adaptor PS-270PHD

Remote 10p   DC Out

HS/SD SDI Input
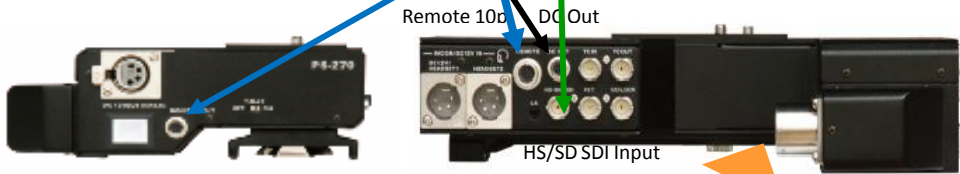
Front Panel

Headset DL-400

Connection Panel

Rear Panel

Optical Fiber cable

Headset DL-400

To Intercom Connector on Front Panel

Tally In   Tally Out   RET Video In   Remote

Panasonic AG-EC4

*Remote control function is available with AG-HPX255 only, other handheld camcorder from Panasonic unable to be remote Controlled.

Tally Cable TC-550*

RET Video Out

HD/SD SDI Output with BNC Cable

HD/SD SDI In

Next Base Station

Tally In

Tally Cable TC-550

Panasonic AV-HS410

Base Station PS-570PHDG Rear View View
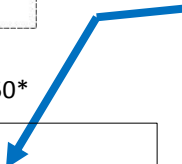
PS-470PHDG Connection Example-A:

Panasonic AJ-HPX370

Tally (Red/Green) with BNC Cable

Protech VF Monitor LVM-89W

Lens Control Cable

SDI Out-1

Video Out

Video In

MONI IF

Remote

Video Out

Mount Bracket UH25

Video Output with BNC Cable

VC-450 6p Cable for RET, Tally and DC Power For Monitor

Camera Adaptor PS-470PHDG

Remote Cable RCC-450P

Remote

MONI IF

HD/SD SDI Camera Output with BNC Cable

Headset DL-400

HD/SD SDI In

Operation Panel

Optical Fiber cable

Connector Panel

Panasonic AJ-RC10G

Headset DL-400

To Intercom Connector on Front Panel

Tally In   Tally Out   RET Video In   Remote

or AG-EC4

Tally Cable TC-550*

RET Video Out

HD/SD SDI Output with BNC Cable

Next Base Station

HD/SD SDI In

Tally In

Tally Cable TC-550

Switcher

Base Station PS-570PHDG Rear View View

PS-470PHDG Connection Example-B:

Panasonic AJ-HPX370

Tally (Red/Green) with BNC Cable

Protech VF Monitor HDM-70WV

D-Tap

DC Power Cable CAP-50(*Supplied Acc. Of HDM-70WV)

XLR 4p

8p RET In/Out

8p Lens Remote Cable ASC-1

SDI In

Tally-1

SDI Out-1

SDI Out-2

HD/SD SDI Camera
Output with BNC Cable

Zoom Demand
Cable

Remote

*Special Tally Cable(6p/BNC conversion)

Remarks; * To be specially prepared

To Zoom
Demand
Controller

Camera Adaptor PS-470PHDG

Tally Out

Remote Cable RCC-450P

Return Video
w/BNC Cable

Remote

HD/SD SDI Camera
Output with BNC Cable

RET HD-Y Out

HD/SD SDI In

Headset DL-400

Operation Panel

Optical Fiber cable

Connector Panel

Panasonic AJ-RC10G

Headset DL-400

To Intercom Connector
on Front Panel

Tally In   Tally Out   RET Video In   Remote

or AG-EC4

Tally Cable TC-550*

RET Video Out

HD/SD SDI Output with
BNC Cable

Next Base Station

HD/SD SDI In

Tally Cable TC-550

Tally In

Panasonic AV-HS410
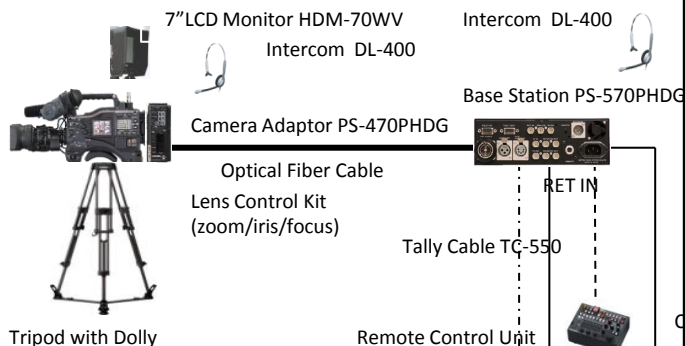
Base Station PS-570PHDG Rear View View
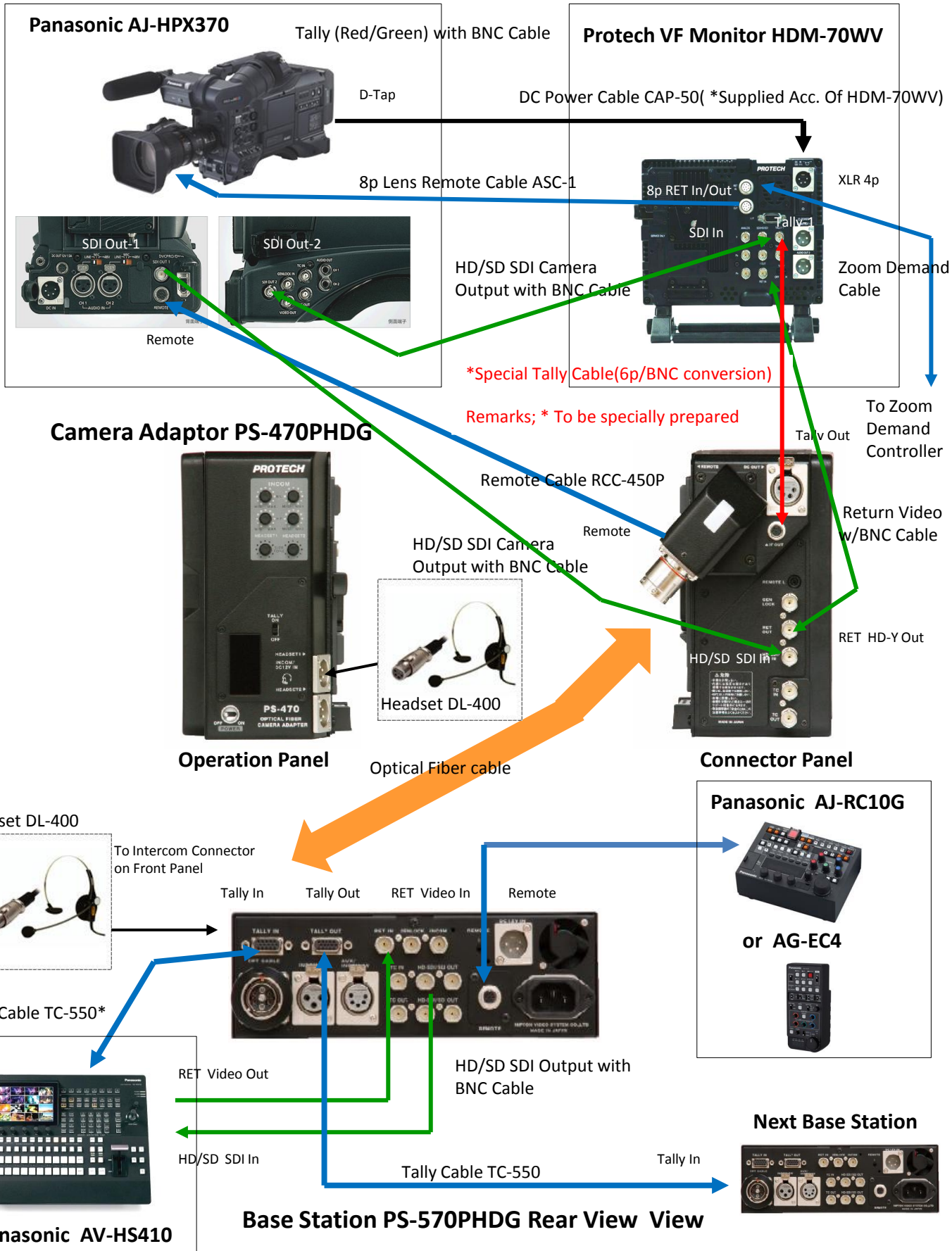
Basic System Configuration:

CASE-1

Camera

Zoom Lens
Remote Cable RCC-450P

8pin lens remote cable ASC-1

7"LCD Monitor HDM-70WV

Intercom DL-400

Intercom DL-400

Base Station PS-570PHDG

Camera Adaptor PS-470PHDG

Optical Fiber Cable

RET IN

Lens Control Kit (zoom/iris/focus)

Tally Cable TC-550

Tripod with Dolly

Remote Control Unit

5" Triple Monitor HDM-3000

CAM-1 CAM-2 CAM-3

7" Dual Monitor HDM-2000

PV PGM

CASE-2

Camera

6pin MONI IF Cable VC-450

7"LCD Monitor LVM-89W

Intercom DL-400   Base Station PS-570PHDG

Camera Adaptor PS-470PHDG

Zoom Lens

Remote Cable RCC-450P

Optical Fiber Cable

Lens Control Kit (zoom/iris/focus)

RET IN   HD/SDSDI In

Tally Cable TC-550

Tripod with Dolly

Remote Control Unit

HD/SD SDI Out

Digital Video Switcher

HD/SDI RET Out

Tally Out

P2 Recorder/Player
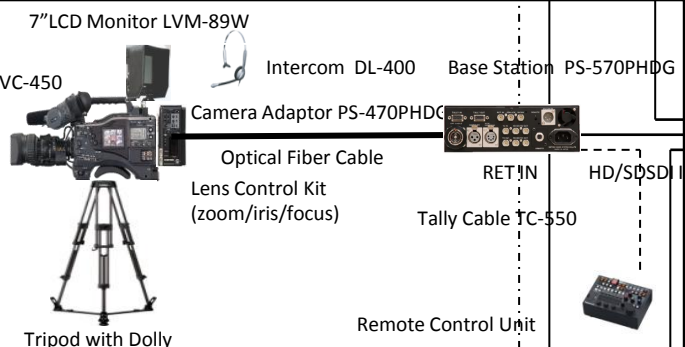
CASE-3

Camera

Remote Cable RCC-450P

7"LCD Monitor LVM-89W   Intercom DL-400

Base Station PS-570PHDG

Camera Adaptor PS-270PHDG

Zoom/Iris Controller
Focus Controller

Optical Fiber Cable

Lens Control Kit (zoom/iris/focus)

RET IN

Remote Control Unit

Tripod with Dolly

Tally Cable TC-550
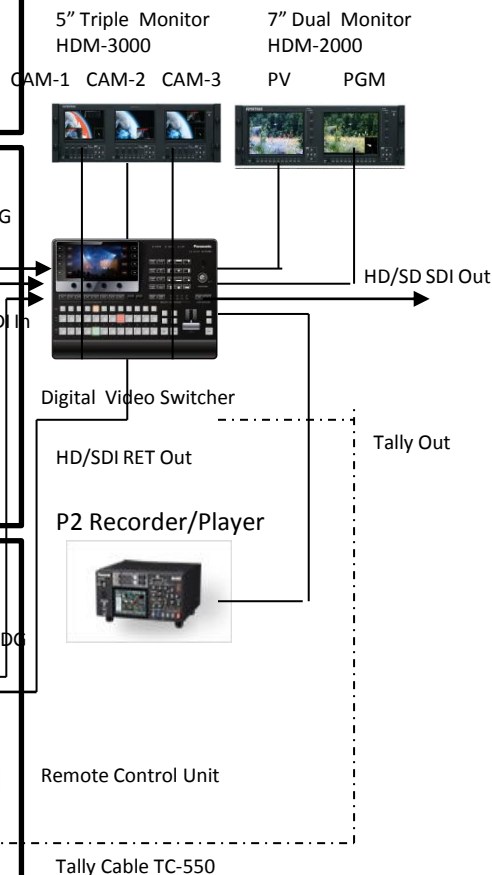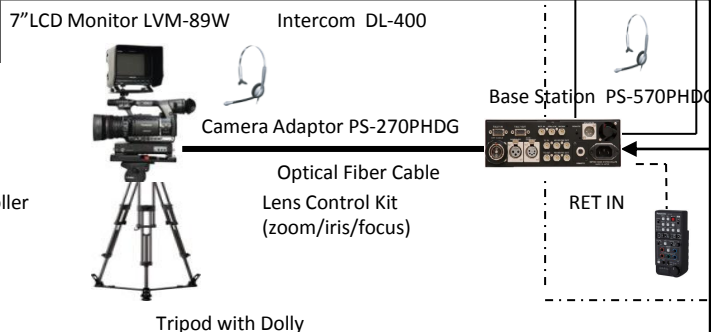
List of Equipment

CASE-1 & CASE-2 (PS-470PHDG)

	Description	Model	Qty	Remarks
1	Shoulder type Camcorder	(AJ-HPX370)	1	Panasonic
2	Tripod Adaptor	(SHAN-TM700)	1	Panasonic
3	Tripod with Dolly	(RS-450)	1	Libec
4	Lens Control Kit		1	Fujinon or Canon
5	Camera Adaptor	PS-470PHDG	1	
6	Remote Cable	RCC-450P	1	
7	8pin Lens Remote Cable, 1m	ASC-1	1	Case-1 only
8	7" LCD Monitor/View Finder	HDM-70WV	1	Case-1 Only
9	8.9" LCD Monitor/View Finder	LVM-89W	1	Case-2 Only
10	6pin MONI IF Cable	VC-450	1	Case-2 Only
11	Optical Fiber cable	ALC-20M/50M/100M	1	
12	Remote Control Unit	(AJ-RC10G or AG-EC4G)	1	Panasonic
13	Base Station	PS-570PHDG	1	
14	Headset with microphone	DL-400	2	
15	Tally Cable	TC-550	1	

CASE-3 (PS-270PHD)

	Description	Model	Qty	Remarks
1	Handheld type Camcorder	(AJ-HPX255)	1	Panasonic
2	Tripod Adaptor	(SHAN-TM700)	1	Panasonic
3	Tripod with Dolly	(RS-350)	1	Libec
4	Zoom/Iris Control Kit		1	NEW
5	Focus Controller		1	NEW
6	Camera Adaptor	PS-270PHD	1	
7	Remote Cable	RCC-450P	1	
8	8.9" LCD Monitor/View Finder	LVM-89W	1	
9	6pin MONI IF Cable	VC-450	1	
10	Optical Fiber cable	ALC-20M/50M/100M	1	
11	Remote Control Unit	(AG-EC4G)	1	Panasonic
12	Base Station	PS-570PHDG	1	
13	Headset with microphone	DL-400	2	
14	Tally Cable	TC-550	1	

(Remarks; in case of Panasonic Camcorder)

Optional Accessory:

Optical Fiber Cable

ALC-20M 20m

ALC-50M 50m

ALC-100M 100m

VF I/F Unit

VIF-100P for Panasonic Camcorder

VIF-100BC for Sony Broadcast Camcorder

VIF-100 for Sony Pro Camcorder

Other cable

VC-450 VF 6p Cable

TC-550 Tally Connection Cable

RCC-450 6p Remote cable

CAP-15 XLR 4p/ Tap Cable(15cm)

DC Power Cable

CAP-50 XLR 4p/ Tap Cable(50cm)

DC-P175/DC-P155 for Panasonic

DC-Z7J/DC-CS1/DC-EX3 for Sony

DC Power Cable

CAN-50, XLR-4p/XLR-4p, 50cm

DC-C40M3, XLR-4p /XLR-4p, 3m

Rack Frame

HS-RA90

Headset

DL-400 Headset

Viewfinder Monitor

HDF-700 7" Master Monitor

HDM-70WV 7" Standard Type

LVM-89W 8.9" Cost Effective

UH25 Bracket for LVM-89W

Basic Specifications:

Basic Specks / Model No.		PS-270HD/PHD/SHDG	PS-470PHDG/SHDG	PS-570PHD/SHDG
Input	HD/SD-SDI	x1 (BNC)	x1(BNC)	RET IN (VBS)
	DC IN	x1 (Base Station)	x2 (V & 4pin XLR)	Tally IN (mini-D-Sub 15p)
	TC IN	x1(BNC)	x1(BNC)	x1(BNC)
Output	HD/SD-SDI	----	----	x2 (HD/SD-SDI :BNC)
	Return-Video	x1 (BNC)	x1(BNC)	x1 (VBS)
	Composite	x1 (BNC)	x1(BNC)	----
	DC Out	x1 (Cam-Tap)	x1(V-mount)	x1 (Optical Fiber)
	Tally Out	x1 (BNC)	x1(BNC)	Tally Out(mini-D-Sub 15p)
	Intercom	x1 (BNC)	x1(BNC)	x1(BNC), 2W & 4W
	Head Set	x1 (4pin XLR)	x1 (4pin XLR)	x1 (4pin XLR)
	TC Out	x1(BNC)	x1(BNC)	x1(BNC)
	Optical Fiber	x1	x1	x1
	Remote	Except PS-270HD	x1	x1
	Gen Lock	PS-270SHDG only	x1	x1
Power		DC13.7V 7A	DC12V 20W	AC or DC12V
Size (mm)		179 x 59 x 246	180 x 169 x 91	215 x 71 x 320
Weight		1.5 kg	1.8kg	3.9kg
Safety Regulation Approval		Pro CE, FCC	Pro CE, FCC	Pro CE, FCC

Specifications are subject to change without notice.